



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/120,664	07/22/1998	DAVID F. GAVIN	101792-100	2454

27267 7590 01/19/2006

WIGGIN AND DANA LLP  
ATTENTION: PATENT DOCKETING  
ONE CENTURY TOWER, P.O. BOX 1832  
NEW HAVEN, CT 06508-1832

EXAMINER

PONNALURI, PADMASHRI

ART UNIT PAPER NUMBER

1639

DATE MAILED: 01/19/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. 09/120,664	Applicant(s) GAVIN ET AL.	
	Examiner Padmashri Ponnaluri	Art Unit 1639	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 11/2/06.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1,38 and 40-49 is/are pending in the application.
- 4a) Of the above claim(s) 47-49 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 38, 40-46 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

NOTE the change of examiner in this application.

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 11/2/05 has been entered.

### ***Status of the Claims***

2. Claims 1, 38 and 40-49 are currently pending.
3. Claims 47-49 are withdrawn from consideration as being directed to a nonelected invention.
4. Claims 1, 38 and 40-46 are currently being examined and under consideration to the extent of the elected invention.

### ***Election/Restriction***

5. Applicant's election with traverse of Group I (claims 1-11 and 35-38: corresponding to present claims 1, 38 and 40-49) in Paper No. 4 is again acknowledged. In response to the election of species requirement, applicant's elected, without traverse, zinc pyrithione which reads on claims 1, 38 and 40-46, respectively.
6. Claims 47-49 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention.

Art Unit: 1639

7. This application contains claims 47-49 drawn to an invention nonelected with traverse in Paper No. 4. A complete reply to the final rejection must include cancellation of nonelected claims or other appropriate action (37 CFR 1.144) See MPEP § 821.01.

***Maintained Rejection (s)***

8. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

9. The new matter rejection of claims 42, 45 and 46 has been maintained for the reasons of record (office action mailed on 5/3/05).

10. The rejection of claims 1, 38, 40, 41, 43 and 44 under 35 U.S.C. 102(e) as being anticipated by Morris US Pat. No. 5,916,947 (6/99: filed 9/96 or earlier) has been maintained for the reasons set forth in the office action mailed on 5/3/05.

11. The rejection of claims 1, 38, 40, 41, 43 and 44 under 35 U.S.C. 102(e) as being anticipated by Hani et al. US Pat. No. 6,162,446 (12/00: filed 3/98) has been maintained for the reasons set forth in the office action mailed on 5/3/05.

12. The rejection of claims 1, 38, 40, 41, 43 and 44 under 35 U.S.C. 102(e) as being anticipated by Mohseni et al. US Pat. No. 6,465,015 (10/02: filed 2/98) has been maintained for the reasons set forth in the office action mailed on 5/3/05.

13. The rejection of claims 1, 38 and 40-46 under 35 U.S.C. 103(a) as being unpatentable over Morris US Pat. No. 5,916,947, Hani et al. US Pat. No. 6,162,446 or Mohseni et al. US Pat. No. 6,465,015 as applied to claims 1, 38, 40, 41, 43 and 44 above, and further in view of

Art Unit: 1639

Kappock et al. US Pat. No. 5,518,774 (5/96) has been maintained for the reasons set forth in the office action mailed on 5/3/05.

***Response to Arguments***

14. Claims 42, 45 and 46 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention (NEW MATTER REJECTION).

New claim 42 (and dependent claims 45 and 46) recite “wherein the metal pyrithione .. within a weight range of ratios of from 1:20 to 20:1 of metal pyrithione relative to the metal or metal-containing compound” constitutes new matter since the specification (e.g. page 10) provides support for the ratio only when the metal is copper (e.g. copper pyrithione) and not for any of the other metals.

15. *Applicant's arguments filed on 11/2/05, regarding the new matter rejection of claims 42, 45 and 46, have been fully considered but they are not persuasive.*

*Applicant's arguments directed to the above new matter rejection were considered but deemed no persuasive for the following reasons.*

*Applicant argues that support is present “on at least page 10, lines 1-15 and 23-29, alone or together with page 16, Example 4.*

*This was considered but deemed no persuasive.*

Art Unit: 1639

*Page 10 by itself fails to provide support since the ratio (1:20 to 20:1) refers specifically to copper. Similarly, Example 4 refers to a 1:20 preparation which is exclusive for copper. Accordingly, there is no specification support for including metals other than copper for the presently claimed range.*

*Accordingly, this rejection is hereby maintained.*

16. Claims 1, 38, 40, 41, 43 and 44 are rejected under 35 U.S.C. 102(e) as being anticipated by Morris US Pat. No. 5,916,947 (6/99: filed 9/96 or earlier).

The claims (e.g. claims 1 and 38, and dependents thereon) are drawn to:

Biocidal compositions comprising “composite particles” having a “shell” and a “core” wherein:  
the “core” comprises a metal (e.g. zinc) or metal compound (e.g. zinc oxide/selenide); and  
the “shell” comprises “metal (e.g. zinc) pyrithione”;  
wherein the “metal pyrithione” is formed by reaction of a “pyrithione acid” or a  
“water-soluble pyrithione salt” (e.g. sodium pyrithione) with the core metal or metal compound.

Morris et al. disclose a biocidal composition comprising zinc pyrithione powder (e.g. see col. 7, lines 4-10 and col. 8, lines 29-31), which meet the  
“composite particle” definition e.g. powder comprises particles.

Additionally, Morris et al. further discloses a biocidal particle composition (e.g. see col. 1, lines 10-20) that comprises a zinc core (e.g. zinc oxide) and a zinc pyrithione “shell” (e.g. see Example 1 and patent claims 1-17).

Art Unit: 1639

More particularly, Morris describes an antifouling coating composition in which zinc oxide has been surface coated by a "photosensitizer" (e.g. page 1, Abstract; patent claims 1 and 15) such as zinc pyrithione (e.g. see patent claim 1: small photosensitizer Markush includes zinc pyrithione: see col. 6-7 and col. 8, lines 29-31). Morris teaches surface-coating the zinc oxide with the "photosensitizer" as well as mixing zinc oxide with the "photosensitizer" (e.g. zinc pyrithione: see col. 8, lines 25-32) .

Thus the Morris reference clearly teaches biocidal particles comprising a zinc oxide core and a zinc pyrithione shell; although failing to explicitly teach that the *metal pyrithione is formed by reacting a pyrithione acid/salt with the core metal/metal compound*.

It is noteworthy that the present claim recites the metal pyrithione shell by its means of manufacture e.g. in product-by-process format (e.g. *metal pyrithione is formed by reacting a pyrithione acid/salt with the core metal/metal compound*).

The Morris et al. particle complex which possesses ingredients within the scope of the presently claimed would inherently possess the same physical parameters as presently claimed (e.g. core/shell structure) regardless of its means of manufacture. In this regard, where the claimed and prior art products are identical or substantially identical in structure or composition (as in the present case) or are produced by identical or substantially identical processes, a prima facie case of either anticipation or obviousness has been established. *In re Best*, 562 F.2d 1252, 1255, 195 USPQ 430, 433 (CCPA 1977). "When the PTO shows a sound basis for believing that the products of the appellant and the prior art are the same, the appellant has the burden of showing that they are not." *In re Spada*, 911 F.2d 705, 709, 15 USPQ2d 1655, 1658 (Fed. Cir.

Art Unit: 1639

1990). For a chemical composition and its properties are inseparable. Therefore, since the prior art teaches the identical or substantially identical chemical structure, the properties appellant discloses and/or claims are necessarily present. *In re Spada*, 911 F.2d 705, 709, 15 USPQ2d 1655, 1658(Fed. Cir. 1990); and MPEP 2112.01. The PTO lacks the facilities for making comparisons between prior art and claimed compositions.

17. *Applicant's arguments filed on 11/2/05, regarding the rejection of claims 1, 38, 40-41, 43-44 as being anticipated by Morris et al ( US Patent 5,916,947), have been fully considered but they are not persuasive.*

*Applicants argue that Morris et al does not disclose or suggest coating a metal moiety with a water-soluble salt of pyrithione. On the contrary, Morris et al disclose coating colloidal zinc oxide with a water insoluble photosensitizer.*

*Applicant's arguments are based on the process limitations of the claim, whereas the instant claims are written as product-by process limitations.*

*[E]ven though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process." *In re Thorpe*, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985) (See MPEP 2113).*



Art Unit: 1639

*Applicant argues that Morris et al. fails to teach "composite particles" (e.g. shell/core) and Morris' method of manufacture differs from applicants, lacks the ability to transchelate and is physically covered and not chemically reacted.*

*Initially, it is again noted that applicant composition is claimed as a product-by-process where a "reasonable basis" that the reference and the claimed composition are the same is sufficient to shift the burden to applicant to provide evidence to the contrary (See In re Best cited above); even though applicant may have invented a new way of making an old material. Accordingly, assuming arguendo that applicant is correct that their particles are made by a different process than that utilized by the above-reference, the reference particles nevertheless prima facie appear to be the same shell and core as applicant's claimed particles; and thus the burden has reasonably been shifted to the applicants to show that their claimed product is different from that of the reference product. Applicant's argument regarding the method fails to rebut the above rejection. Indeed, these arguments directed to the prior art process were already addressed by the Examiner in the previous office actions. All the reasons already of record in response to applicant's arguments are hereby incorporated by reference in their entirety. NOTE applicants have neither amended the claims nor the response to the office action. Thus, for the reasons of record the rejection is hereby maintained.*

18. Claims 1, 38, 40, 41, 43 and 44 are rejected under 35 U.S.C. 102(e) as being anticipated by Hani et al. US Pat. No. 6,162,446 (12/00: filed 3/98).

The claims (e.g. claims 1 and 38, and dependents thereon) are drawn to:

Art Unit: 1639

Biocidal compositions comprising “composite particles” having a “shell” and a “core” wherein:  
the “core” comprises a metal (e.g. zinc) or metal compound (e.g. zinc oxide/selenide); and  
the “shell” comprises “metal (e.g. zinc) pyrrithione”;  
wherein the “metal pyrrithione” is formed by reaction of a “pyrrithione acid” or a  
“water-soluble pyrrithione salt” (e.g. sodium pyrrithione) with the core metal or metal compound.

Hani et al. teach “biocidal” (e.g. antimicrobial: see col.1 ) compositions comprising zinc pyrrithione particles (e.g. the “shell” component) produced by an *in situ* transchelation reaction of:

- a. pyrrithione acid or a soluble salt (e.g. Na/K pyrrithione: see bottom of col. 3 to col. 4); and
- b. a metal (e.g. zinc) compound (e.g. the “core” component; including zinc oxide: see col. 3, lines 53-65)

for incorporation into personal care compositions.

See Abstract; col. 2-4; Examples 1 and 2; patent claims, especially claims 1, 6, 8, 9 and 16-20.

The Hani et al. particle complex which possesses ingredients within the scope of the presently claimed would inherently possess the same physical parameters as presently claimed (e.g. core/shell structure), especially since both its components and the means of making the zinc pyrrithione shell is the same e.g. transchelation reaction between a zinc compound and a pyrrithione acid/salt. In this regard, where the claimed and prior art products are identical or substantially identical in structure or composition (as in the present case) or are produced by identical or substantially identical processes (as is also the case), a *prima facie* case of either anticipation or obviousness has been established. *In re Best*, 562 F.2d 1252, 1255, 195 USPQ

Art Unit: 1639

430, 433 (CCPA 1977). "When the PTO shows a sound basis for believing that the products of the appellant and the prior art are the same, the appellant has the burden of showing that they are not" *In re Spada*, 911 F.2d 705, 709, 15 USPQ2d 1655, 1658 (Fed. Cir. 1990). For a chemical composition and its properties are inseparable. Therefore, since the prior art teaches the identical or substantially identical chemical structure, the properties appellant discloses and/or claims are necessarily present. *In re Spada*, 911 F.2d 705, 709, 15 USPQ2d 1655, 1658 (Fed. Cir. 1990); and MPEP 2112.01. The PTO lacks the facilities for making comparisons between prior art and claimed compositions.

19. *Applicant's arguments filed on 11/2/05, regarding the rejection of claims over Hani et al (US Patent 6,162,446) have been fully considered but they are not persuasive.*

*Applicants assert that 'that the present application was filed on July 1998, however the date of the invention pre-dates the filing date of Hani et al. Proof of the earlier invention date will be submitted with an affidavit under 37 CFR 1.131. The affidavit under 37 CFR 1.131 will remove Hani et al as a reference that may be applied against the claims of the instant application.*

*Applicant's assertions have been fully considered and are not persuasive. Since the response filed on 11/2/05 did not accompany the affidavits under 37 CFR 1.131, and no affidavits are currently present in the application to overcome the rejection. Thus, for the reasons of record the rejection has been maintained.*

Art Unit: 1639

20. Claims 1, 38, 40, 41, 43 and 44 are rejected under 35 U.S.C. 102(e) as being anticipated by Mohseni et al. US Pat. No. 6,465,015 (10/02: filed 2/98).

The claims (e.g. claims 1 and 38, and dependents thereon) are drawn to:

Biocidal compositions comprising “composite particles” having a “shell” and a “core” wherein:

the “core” comprises a metal (e.g. zinc) or metal compound (e.g. zinc oxide/selenide); and

the “shell” comprises “metal (e.g. zinc) pyrrithione”;

wherein the “metal pyrrithione” is formed by reaction of a “pyrrithione acid” or a “water-soluble pyrrithione salt” (e.g. sodium pyrrithione) with the core metal or metal compound.

Mohseni et al. teach “biocidal” (e.g. see bottom of col. 2 ) compositions comprising metal (e.g. zinc) pyrrithione particles (e.g. the “shell” component) produced by a transchelation reaction (e.g. see patent claim 3) of:

a. pyrrithione acid or a soluble salt (e.g. Na/K pyrrithione: see examples; patent claims especially claims 28, 29 and 42); and

b. a zinc compound (e.g. the “core” component “comprises zinc”; including zinc sulfate: see examples; patent claims, especially claims 3-42)

for incorporation into personal care products (e.g. examples 8-10).

See also: Abstract; col. 6-8; Examples 1 and 4; patent claims, especially claims 1, 6, 8, 9 and 16-20.

The Mohseni et al. particles possesses ingredients within the scope of the presently claimed which would inherently possess the same physical parameters as presently claimed (e.g. core/shell structure), especially since both its components and the means of making the zinc

Art Unit: 1639

pyrithione shell is the same e.g. transchelation reaction between a metal (e.g. zinc) compound and a pyrithione acid/salt. In this regard, where the claimed and prior art products are identical or substantially identical in structure or composition (as in the present case) or are produced by identical or substantially identical processes (as in the present case), a prima facie case of either anticipation or obviousness has been established. *In re Best*, 562 F.2d 1252, 1255, 195 USPQ 430, 433 (CCPA 1977). "When the PTO shows a sound basis for believing that the products of the appellant and the prior art are the same, the appellant has the burden of showing that they are not." *In re Spada*, 911 F.2d 705, 709, 15 USPQ2d 1655, 1658 (Fed. Cir. 1990). For a chemical composition and its properties are inseparable. Therefore, since the prior art teaches the identical or substantially identical chemical structure, the properties appellant discloses and/or claims are necessarily present. *In re Spada*, 911 F.2d 705, 709, 15 USPQ2d 1655, 1658 (Fed. Cir. 1990); and MPEP 2112.01. The PTO lacks the facilities for making comparisons between prior art and claimed compositions.

21. *Applicant's arguments filed on 11/2/05, regarding the rejection of claims over Mohseni et al (US Patent 6,465,015) have been fully considered but they are not persuasive.*

*Applicants assert that 'Mohseni et al was filed on February 23, 1999 and issued on October 15, 2002. The present application was filed on July 1998, however the date of the invention pre-dates the filing date of Mohseni et al. Proof of the earlier invention date will be submitted with an affidavit under 37 CFR 1.131. The affidavit under 37 CFR 1.131 will remove Mohseni et al as a reference that may be applied against the claims of the instant application.*

Art Unit: 1639

*Applicant's assertions have been fully considered and are not persuasive. Mohseni et al filed on 2/23/99, and claims priority to provisional application 60/075,803 filed on 2/24/98. Thus the effective filing date of Mohseni et al is 2/24/98. The response filed on 11/2/05 did not accompany the affidavits under 37 CFR 1.131, and no affidavits are currently present in the application to overcome the rejection. Thus, for the reasons of record the rejection has been maintained.*

22. Claims 1, 38 and 40-46 are rejected under 35 U.S.C. 103(a) as being unpatentable over Morris US Pat. No. 5,916,947, Hani et al. US Pat. No. 6,162,446 or Mohseni et al. US Pat. No. 6,465,015 as applied to claims 1, 38, 40, 41, 43 and 44 above, and further in view of Kappock et al. US Pat. No. 5,518,774 (5/96).

The Morris, Hani et al. and Mohseni et al. reference teachings as described above is herein incorporated by reference in their entirety.

Although the Morris, Hani or Mohseni references all teach biocidal compositions comprising pyrithione metal composite particles formed by reacting (e.g. transchelating) a 'core' metal (e.g. zinc) or metal compound (e.g. zinc oxide/selenide) with a "pyrithione acid" or a "water-soluble pyrithione salt" (e.g. sodium pyrithione) compound, the references differ by failing to explicitly teach a "shell" (e.g. metal (zinc) pyrithione) to "core" e.g. (zinc) metal or metal-containing compound ratio of 1:20 to 20:1. See new claim 42 and dependent claims 45 and 46.

However, the Kappock et al. reference teach metal ion-containing compounds transchelated with pyrithione and its salts to form biocidal particle coating compositions; which

Art Unit: 1639

its components can be provided in an amount sufficient to provide a molar ratio of pyrrithione salt to metal ion-containing compound of between about 1:10 and about 10:1. However, if zinc is employed as the metal, the amount of zinc compound should be optimized to enable complete conversion of the pyrrithione salt by transchelation to zinc pyrrithione during storage of the coating composition. See Kappock et al. Col. 2-3, especially col. 3, lines 12-32.

Accordingly, the Kappock et al. reference provides ample motivation to one of ordinary skill in the art at the time of applicant's invention to optimize the transchelation reaction components in order to obtain composite particles comprising metal pyrrithione to metal or metal containing compound core components of about 1:10 and about 10:1 or otherwise optimize and obtain ratio amounts within the scope of the presently claimed invention.

Thus, it would have been prima facie obvious to one of ordinary skill in the art at the time of applicant's invention to modify the transchelation reaction components of the Morris, Hani et al. and Mohseni et al. reference compositions to arrive at metal pyrrithione:pyrrithione acid/salt weight proportions within the presently claimed invention (e.g. 1:20 to 20:1) especially in view of the Kappock reference teaching that optimizing the reaction components is important to enable complete conversion of the pyrrithione salt by transchelation to zinc pyrrithione.

23. *Applicant's arguments filed on 11/2/05, regarding the obviousness rejection of claims over Morris et al, Hani et al, Mohseni et al and further in view of Kappock et al, have been fully considered but they are not persuasive.*

*Applicants assert that affidavits under 37 CFR 1.131 will remove Hani et al, and Mohseni et al as references that may be applied against the claims of the instant application.*

*Applicant's assertions have been considered and are not persuasive, since the affidavits have not yet filed in the application.*

*Applicants further argue that the rejection based upon the combination of these references is untenable since the result sought to be achieved by virtue of the combination runs counter to the teachings of the individual references. For example, Morris et al teaches away from transchelation of any kind, much less that of the instantly claimed product, by virtue of patentees' disclosure of a common ion (zinc) for the metal and for the pyrithione salt.*

*Contrariwise, Kappock teaches complete transchelation of zinc with a soluble pyrithione salt to produce an insoluble pyrithione salt, namely zinc pyrithione. Accordingly, applicant argues that there is no motivation to combine these references since the teachings of one run counter to the teachings of the other reference.*

*Initially, it is noted that applicant's transchelation teaching away argument is only applicable to the Morris reference, which is silent regarding transchelation. Such is not the case for the Hani and Mohseni references which teach transchelation. Accordingly, for the Hani and Mohseni reference methods the Kappock reference provides explicit motivation (Kappock col. 2) for achieving concentration ranges (e.g. about 1:10 and about 10:1: see col. 3, especially lines 32) within the scope of the presently claimed broad range of 1:20 to 20:1.*

*In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5*



Art Unit: 1639

*USPQ2d 1596 (Fed. Cir. 1988) and In re Jones, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, Kappock et al provide the motivation (i.e., storage stability) for utilizing optimum concentrations when forming the composition comprising zinc pyrithione and metal compound: zinc oxide for same biocidal use. Thus, one of ordinary skill in the art would be motivated to optimize the Morris ingredient concentrations in the manner Kappock teachings for the motivation provided by Kappock, due to the absolute similarity of the Kappock. Morris compositions and their intended use.*

*The Examiner's response regarding the obviousness rejections addressed in the previous office action mailed on 5/3/05, is hereby incorporated by reference in its entirety.*

*Initially, it is again noted that applicant composition is claimed as a product-by-process where a "reasonable basis" that the reference and the claimed composition are the same is sufficient to shift the burden to applicant to provide evidence to the contrary (See In re Best cited above); even though applicant may have invented a new way of making an old material. Accordingly, assuming arguendo that applicant is correct that their particles are made by a different process than that utilized by the above- recited Morris/Hani/Mohseni references, the reference particles nevertheless prima facie appear to be the same shell and core as applicant's claimed particles; and thus the burden has reasonably been shifted to the applicants to show that their claimed product is different from that of the reference product. Applicant's argument regarding the method fails to rebut the above rejection. Additionally, it is noted that the primary reference teaching of making compositions within the scope of the presently claimed invention would in fact render obvious (without the Kappock reference teaching) the incredibly broadly recited concentration range (e.g. 1:20 to 20:1) presently claimed.*

*Applicant further argues that the outstanding Office Action acknowledges at page 11 thereof that Kappock teaches that if zinc is employed as the metal, the amount of zinc compound should be optimized to enable complete conversion of the pyrithione salt to the zinc salt of pyrithione. In other words, all of the soluble pyrithione salt, e.g., sodium pyrithione, is converted to zinc pyrithione in accordance with the teachings of Kappock. These teachings of the reference do not suggest the formation of any composite particles, much less those as instantly claimed.*

*In response to applicant's arguments against the Kappock reference individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).*

*Additionally, applicant's arguments with regard to the Morris reference are not convincing since these arguments are misguided in the following respects.*

*Initially, the Morris reference lack of an explicit teaching as to mechanism (e.g. transchelation or otherwise), is not proof that transchelation doesn't indeed occur.*

*Nor does the lack of a teaching of transchelation render the Morris reference incompatible with the Kappock reference teaching insofar that applicant fails to appreciate the teaching to one of ordinary skill in the art provided by the Kappock reference. Kappock provides motivation (e.g. storage stability: e.g. in-can preservation against microbial attack) for utilizing optimum concentrations when forming compositions comprising zinc pyrithione utilizing the same reactants as presently claimed (e.g. metal salts: sodium pyrithione and metal compound: zinc oxide) for the same biocidal use (e.g. paints). Regardless of the Morris stated/unstated mechanism, one of ordinary skill art would be motivated to optimize the Morris ingredient*

Art Unit: 1639

*concentrations in the manner of the Kappock reference for the motivation provided in Kappock due to the absolute similarity of the Kappock/Moriss compositions and their intended use.*

*Accordingly, the above rejection is hereby maintained.*

### ***Conclusion***

24. No claims are allowed.

25. All claims are drawn to the same invention claimed in the application prior to the entry of the submission under 37 CFR 1.114 and could have been finally rejected on the grounds and art of record in the next Office action if they had been entered in the application prior to entry under 37 CFR 1.114. Accordingly, **THIS ACTION IS MADE FINAL** even though it is a first action after the filing of a request for continued examination and the submission under 37 CFR 1.114. See MPEP § 706.07(b). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Art Unit: 1639

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Padmashri Ponnaluri whose telephone number is 571-272-0809. The examiner can normally be reached on Monday through Friday between 7 AM and 3.30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Wang can be reached on 571-272-0811. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Padmashri Ponnaluri  
Primary Examiner  
Art Unit 1639

  
**PADMASHRI PONNALURI**  
**PRIMARY EXAMINER**

18 January 2006